

In the claims:

9. (Four Times Amended) A target for installation in a vacuum chamber for processing a substrate by causing sputtering material to be ejected from the target onto said substrate, comprising

a disk-shaped section having two planar surfaces and on outer periphery, said disk-shaped section having at least one ~~radically~~radially-inward step proximate said outer periphery, ~~said disk-shaped section having at least one radially inward step proximate said outer periphery.~~

a continuous ring configured backing plate with an adapter having an inner radial flange ~~with~~having at least one groove therein to accommodate an o-ring, said radial flange being disposed in a mating relationship with said radially-inward step thereby preventing leakage into said vacuum chamber at the interface of said adapter and said vacuum chamber,

said target being manufactured homogeneously of said sputtering material, and

said disk-shaped section defining threaded holes proximate said outer periphery of said disk-shaped section.

10. (Previously Amended) The target of claim 9 wherein said disk-shaped section is sufficiently self-supporting to bear stress arising when said section is mounted to said vacuum chamber supported only proximate said outer periphery, and said chamber is evacuated to initiate sputtering, such that one planar surface of said section is exposed to vacuum pressure while an opposite side thereof is not exposed to reduced pressure.

11. (Original) The target of claim 9 wherein said sputtering material is a refractory metal.

12. (Previously Amended) The target of claim 9 wherein said sputtering material is one of Titanium, Gold, and Aluminum.

13. (Original) The target of claim 9 wherein said sputtering material is Aluminum or an oxide thereof.

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23. (Previously Amended) The target of claim 9 wherein said disk-shaped section defines threaded holes opening into said at least one radially-inward step, proximate said outer periphery of said disk-shaped section.

24. (Previously Amended) The target of claim 9 wherein said disk-shaped section has two radially-inward steps proximate said outer periphery.